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SCOURING IMPLEMENT

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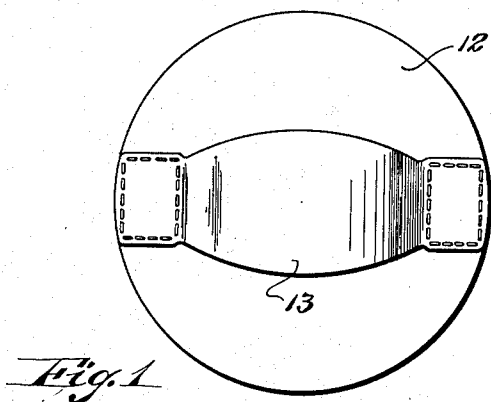


Fig. 1

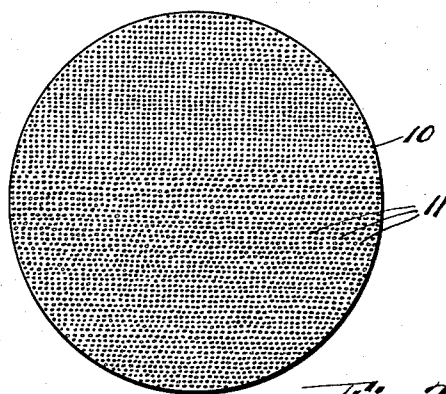


Fig. 2

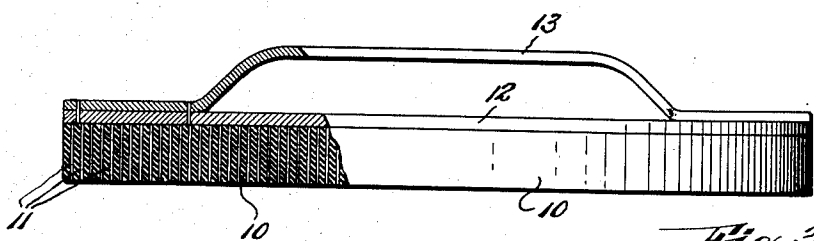


Fig. 3

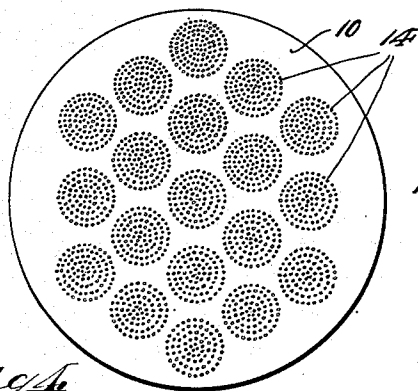


Fig. 4

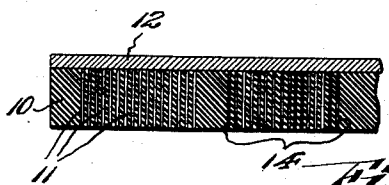


Fig. 5

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SCOURING IMPLEMENT

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2 Claims. (Cl. 15—105)

This invention relates to improvements in scouring implements; and the invention has reference, more particularly, to a novel device adapted for use in producing abrading, scouring, polishing and like effects upon surfaces rubbed therewith.

The invention has for an object to provide a novel device for the purposes stated, comprising a body of yielding or resilient material through which are dispersed a multiplicity of metallic filaments, preferably in the form of comparatively stiff wire bristles which are imbedded in the body material in laterally spaced relation and disposed to extend through the thickness of the body, substantially at right angles to the operative face plane thereof, and so that extremities thereof are exposed flush with said body face plane; said body and its contained metallic bristles being backed by a suitable backing member made of material sufficiently tough to resist penetration thereof by said metallic bristles, whereby, when pressure is applied to the device in use, an endwise thrust will be transmitted to said wire bristles tending to strongly engage their operative extremities with the surface to which the device is applied in use, while the resilient body per se, under such pressure, tends to yield from said surface so as to effect such projection of the bristles from the operative face plane thereof as will assure effective abrading contact of the extremities of the latter with the surface being treated.

Other objects of this invention, not at this time more particularly enumerated, will be understood from the following detailed description of the same.

Illustrative embodiments of this invention are shown in the accompanying drawing, in which:

Fig. 1 is a back view of a device, according to this invention; Fig. 2 is an operative face view of the same; and Fig. 3 is in part a vertical sectional view and in part an edge elevation of the same, this view being drawn on an enlarged scale.

Fig. 4 is an operative face view of a somewhat modified construction of a device embodying the principles of this invention; and Fig. 5 is a fragmentary vertical sectional view thereof, drawn on an enlarged scale.

Similar characters of reference are employed in the hereinabove described views, to indicate corresponding parts.

Referring to the drawing, the device according to this invention, in the arrangement shown in Figs. 1 to 3 inclusive, comprises a main body

10 of any desired peripheral shape (a circular peripheral shape being shown merely for the purposes of illustration) and having substantial thickness. This body 10 is preferably made of soft vulcanized rubber, with or without a filler material. For example, if little or no abrasive effect is desired to be obtained by the frictional contact of the body per se with the surface treated, the body may be made of unfilled soft vulcanized rubber, but if some additional mild abrasive effect is desired to be obtained by the frictional contact of said body per se with the surface treated, then the body may be made of soft vulcanized rubber containing a filler of some mild abrasive, such as pumice stone, fine emery powder or some similar material. Dispersed throughout the mass of said body 10, so as to be molded into the same and thus imbedded therein, are a multiplicity of relatively stiff metallic strands or wire bristles 11. These metallic bristles, in the form of the device shown in Figs. 2 and 3, are more or less uniformly dispersed throughout the mass of the body 10 in laterally spaced relation, and so as to extend lengthwise through the thickness of said body from its upper or back face to its bottom or operative face, and preferably vertically, i. e. at right angles to the horizontal plane of the body. The lower extremities of said metallic bristles 11 are exposed flush with the bottom or operative face of said body.

Suitably secured to the upper or back face of the metallic bristle containing body 10 is a backing member 12 of corresponding peripheral shape. Said backing member 12 may be made of any material suitable for the purpose which possesses sufficient toughness to resist penetration therinto of the upper extremities of said metallic bristles 11. For example, the backing member 12 may be made of leather, fibre, wood, metal, a phenolic condensation product, or any other material of similar substantially impenetrable material. Preferably the body 10 and backing member 12 are cemented together, but, of course, may be secured together in operative assembled relation in any other manner or by any other means found practicable and desirable.

If desired, any suitable form of handle means, hand strap or loop or like means, as 13, calculated to provide a convenient means by which the device may be operatively engaged by the hand of the user, is suitably attached to the outer face of said backing member 12.

In Figs. 4 and 5 of the drawing, there is shown a modified arrangement of the body and metal-

5 lic bristle structure, wherein, instead of uniformly dispersing the metallic bristles throughout the entire mass area of the body, said bristles are arranged in spaced clusters or groups 14, the individual elements of which are imbedded in the
10 body to extend through the thickness thereof in the same manner and with their lower extremities exposed flush with the operative face of the body, all as already above explained. It will be
15 obvious that the grouped arrangement of the bristles, thus generally exemplified in Figs. 4 and 5, is subject to great variation as to group shape, symmetrical disposition, etc.

15 In the use of the device, when the operative face of the same is applied to a surface to be treated, and pressure is exerted upon the backing member 12 as the device is rubbed back and forth over said surface, the exerted pressure upon the backing member will be transmitted to
20 the metallic bristles 11 so as to effect an endwise thrust thereupon. This endwise thrust upon the bristles 11 causes the extremities thereof exposed at the operative face of body 10 to strongly engage the surface treated, so that, as moved
25 across said surface, said bristles will exert a more or less strong abrasive effect upon the surface. Owing to the fact that the body 10 is of resilient or yielding character, it will, under the pressure exerted upon the device in the manner
30 above stated, tend to compress, i. e. reduce in thickness, so that the metallic bristles 11, being non-contractible lengthwise, will tend to project from the operative face of the body mass, and consequently their extremities will be strongly
35 thrust against the surface under treatment, while, at the same time, the metallic bristles being substantially individually surrounded by a mass of the material composing the body will be adequately supported thereby against lateral collapse or displacement. As the bristles 11 tend
40 to wear down, the compressibility of the body 10 will compensate for such wear, so that the effective useful life of the device is not terminated until the limit of compressibility of body 10 is reached.

45 The device affords a very efficient implement adequate to serve many useful purposes where abrading, scraping, scouring, polishing or similar effects are desired to be attained. For example, among many other possible uses, the device serves admirably as a scouring implement for
50 cleaning, scouring and polishing kitchen utensils such as pots, pans, dishes, cutlery, etc.

It will be obvious that many changes could be made in the above described constructions and

many apparently widely different embodiments of this invention could be made without departing from the scope thereof as defined in the following claims. It is therefore intended that all matter contained in the above description or
5 shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

I claim:—

1. A device for the purposes described, comprising a flat body of yielding material of substantial thickness, one face of which constitutes an operative face and the other of which constitutes a back face, a multiplicity of spaced metallic bristles imbedded lengthwise through the thickness of said body to extend from the back face to the operative face thereof, opposite inner and outer ends of said bristles being respectively exposed flush with the respective back and operative faces of said body, and an impenetrable backing member secured to said back face of said body to abut the bristle inner ends whereby pressure applied to said backing member operative to compress the yieldable body, when the latter's operative face is applied to and rubbed over a surface to be treated, is transmitted to said bristles with tendency to project their outer end beyond the operative face of said body.

2. A device for the purposes described, comprising a flat body of compressible soft vulcanized rubber of substantial thickness, one face of which constitutes an operative face and the other of which constitutes a back face, a multiplicity of straight wire bristles imbedded lengthwise through the thickness of said body and in laterally spaced apart relation to extend from the back face to the operative face thereof, substantially each bristle being surrounded, braced and supported by contiguous mass portions of said body against lateral displacement or collapse, opposite inner and outer ends of said bristles being respectively exposed flush with the respective back and operative faces of said body, and an impenetrable backing member secured to said back face of said body to abut the bristle inner ends whereby pressure applied to said backing member operative to compress the yieldable body, when the latter's operative face is applied to and rubbed over a surface to be treated, is transmitted to said bristles with tendency to project their outer ends beyond the operative face of said body.

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